OIPE

P.5

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

```
      1 <110> APPLICANT: Byrum, Joseph R.
      2        Heck, Gregory R.
      3        La Rosa, Thomas J.
      5 <120> TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
      6        Plants
      8 <130> FILE REFERENCE: 38-21(15367)C
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/960,481
C--> 10 <141> CURRENT FILING DATE: 2001-09-24
     10 <150> PRIOR APPLICATION NUMBER: US 09/306,349
     11 <151> PRIOR FILING DATE: 1999-05-10
     13 <160> NUMBER OF SEQ ID NOS: 53893
     15 <210> SEQ ID NO: 1
     16 <211> LENGTH: 300
     17 <212> TYPE: DNA
     18 <213> ORGANISM: Glycine max
     20 <223> OTHER INFORMATION: Clone ID: 701036901H1
     22 <400> SEQUENCE: 1
     24 tgtaaatctc aagatcagat cctcatctac caccattcca ggtgtagcca tcaaaacaac   60
     26 gtttgtttaa caaaacccat tatcagatca gatccgatca gatcctcttc agattcggat  120
     28 caccgccgag tccatgagca cgccagcgct ttcagggggc acgggcctct tctctggatt  180
     30 cacgcgttta tgcaagggcc ttgcggtggt gcttgtttgc ggtcacattg cggttcagtt  240
     32 tatcccttca gctgttaact atcttgctct tattcccgcc aggacaatcc catttgcctg  300
     35 <210> SEQ ID NO: 2
     36 <211> LENGTH: 297
     37 <212> TYPE: DNA
     38 <213> ORGANISM: Glycine max
     40 <223> OTHER INFORMATION: Clone ID: 701036902H1
     42 <400> SEQUENCE: 2
     44 aaattacata gcctcaataa tctgagagag aaacaaaaac aatgaaggtt tccattgcca   60
     46 agttccactc ccttccccta tgttttttcc ttctcttggc cttcaacaca aaacccctcc  120
     48 tagcagcaga accagagcca gtggttgata agcaagggaa ccctttggag ccaggagtag  180
     50 ggtactacgt gtggccactt tgggctgatg aaggaggcct cacactaggc caaacaagga  240
     52 acaagacatg ccctctttat gttatccgtg acccttcatt cattggcacc ccatttc      297
     55 <210> SEQ ID NO: 3
     56 <211> LENGTH: 295
     57 <212> TYPE: DNA
     58 <213> ORGANISM: Glycine max
     60 <220> FEATURE:
     61 <221> NAME/KEY: unsure
     62 <222> LOCATION: (1)..(295)
     63 <223> OTHER INFORMATION: unsure at all n locations
     64 <223> OTHER INFORMATION: Clone ID: 701036903H1
     66 <400> SEQUENCE: 3
     68 gcctagccat tgatttggaa aagtccaagc ttcaaagatg agtaagcttc agagtgatgc   60
W--> 70 tcttagagaa gctatctcan gaatcatgac tgattccaag gaaaagaaca ggaaatttgt  120
     72 ggagaccatt gaactccaaa ttgggctgaa aaactatgat ccccagaagg acaagcgttt  180
W--> 74 tantggctct gttaagttgc ctcacattcc tcgccccaag atgaagattt gtatgcttgg  240
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ENTERED

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PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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 76 agatgcccaa cacgttgaag aggctgagaa gataggattg gactacatgg atgtc        295
 79 <210> SEQ ID NO: 4
 80 <211> LENGTH: 291
 81 <212> TYPE: DNA
 82 <213> ORGANISM: Glycine max
 84 <223> OTHER INFORMATION: Clone ID: 701036904H1
 86 <400> SEQUENCE: 4
 88 tttttcttct atgaacacat ggtggctgag ttgaggggaa gtacttagaa acagaaacac   60
 90 agagatgaaa ccagaaacat ctctgaactt tactttgatg ctgactttct tactttatct  120
 92 gaacttggtt atgggagtgc tgagcgttga tcattatcgc agagttgact ttcctgatga  180
 94 attcgttttt ggttcaggca cctctgctta tcaggtggaa ggagcttcta acgaagatgg  240
 96 gagaactcct agcatctggg atacctttgc ccatgcggtg tatgagcagg a           291
 99 <210> SEQ ID NO: 5
100 <211> LENGTH: 292
101 <212> TYPE: DNA
102 <213> ORGANISM: Glycine max
104 <223> OTHER INFORMATION: Clone ID: 701036905H1
106 <400> SEQUENCE: 5
108 gtttttgccc accacttttg ctttttctgc tcaaattctg tgctcatcgc cctcgtcgtg   60
110 ttcactttgt cactgctaat ggcatttttg ctggggaaac ggcgctcttc gcaaaacgaa  120
112 ttggcaaaac ggcgcagaga caaatcgcca gaaggcattg aattggagga gaatcccgag  180
114 gtgttcaaaa gttctttgct gaaggactcc aaagaacaca tcatcagtac gtactttcct  240
116 gatgtgcgca cacttttcga tgctttccaa cgcggtctca aattgccgaa ca           292
119 <210> SEQ ID NO: 6
120 <211> LENGTH: 293
121 <212> TYPE: DNA
122 <213> ORGANISM: Glycine max
124 <220> FEATURE:
125 <221> NAME/KEY: unsure
126 <222> LOCATION: (1)..(293)
127 <223> OTHER INFORMATION: unsure at all n locations
128 <223> OTHER INFORMATION: Clone ID: 701036906H1
130 <400> SEQUENCE: 6
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W-->
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132 caaattttcg gatctcttct gtttcttcga atncaaaacc ctaattcccc caatttcatt   60
134 tttcaacctt gaaaaacctt ctctctctct ctcagttccc aacggtcatc accacagctc  120
136 gatcaacagg gacatatttg ctactgaaga gatgtctcct gcttccaaat ctaagtctaa  180
138 agacaaaaat gctggcaagg aagctcaaaa gtcttctgcc aagtcttcag gatctggtaa  240
140 tgccgtggct ggtgtaccag ctagtgcata caatccttta tcgggaacat cca          293
143 <210> SEQ ID NO: 7
144 <211> LENGTH: 292
145 <212> TYPE: DNA
146 <213> ORGANISM: Glycine max
148 <223> OTHER INFORMATION: Clone ID: 701036907H1
150 <400> SEQUENCE: 7
152 ggcactcaaa cattgtttgt tgtaggaaga ggaatcttga gaaatggcag gggacagcaa   60
154 gagcaagatt ctgttcatcg gagggactgg ttacatcgga aaattcatcg tggaagccag  120
156 cgccaaagct ggccacccaa ctttcctttt ggtgagggag tccactctct ccaaccccgc  180
158 aaaatcatcc ctcatcgaca atttcaaagg cctcggtgtc aatcttgttt tcggagatct  240
160 atacgatcac caaagtttgg tgagtgctat aaagcaggtc gatgtggtaa tt           292
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RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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        163 <210> SEQ ID NO: 8
        164 <211> LENGTH: 86
        165 <212> TYPE: DNA
        166 <213> ORGANISM: Glycine max
        168 <220> FEATURE:
        169 <221> NAME/KEY: unsure
        170 <222> LOCATION: (1)..(86)
        171 <223> OTHER INFORMATION: unsure at all n locations
        172 <223> OTHER INFORMATION: Clone ID: 701036908H1
        174 <400> SEQUENCE: 8
W--> 176 gaaaaanaaa aaaacngaac aactacngaa antcaaaacc aacttaaatt tnttatggat   60
W--> 178 ccannttnca tnggttangt tgtttt                                         86
        181 <210> SEQ ID NO: 9
        182 <211> LENGTH: 293
        183 <212> TYPE: DNA
        184 <213> ORGANISM: Glycine max
        186 <220> FEATURE:
        187 <221> NAME/KEY: unsure
        188 <222> LOCATION: (1)..(293)
        189 <223> OTHER INFORMATION: unsure at all n locations
        190 <223> OTHER INFORMATION: Clone ID: 701036909H1
        192 <400> SEQUENCE: 9
W--> 194 tcaaaccaaa aaacacaaca aaaganagan agaaaganac aaagagttcc ttgctttgta   60
W--> 196 gtaagatata tccatcaaaa atggttttgt cttggactag aaganacgtt ttccgccgtg  120
W--> 198 cnaagaaggn gaaggaacaa agtcaactat tagaagttga ggttgtgatt cccaaccact  180
        200 ttcgctgtcc ggtgagtttg gagctgatga cagatccggt gactttatca accggcatta  240
        202 cctacgaccg tgtgagcatc gagaagtgga tcgagggaga aaacagaacc tgc          293
        205 <210> SEQ ID NO: 10
        206 <211> LENGTH: 141
        207 <212> TYPE: DNA
        208 <213> ORGANISM: Glycine max
        210 <220> FEATURE:
        211 <221> NAME/KEY: unsure
        212 <222> LOCATION: (1)..(141)
        213 <223> OTHER INFORMATION: unsure at all n locations
        214 <223> OTHER INFORMATION: Clone ID: 701036910H1
        216 <400> SEQUENCE: 10
W--> 218 tggagtttta ntttaaacta tggctatggt aatggaaaac cgncgttttt ncgtgttttc   60
W--> 220 accactttcg tttcttgatc agagtcaccc cccaaaaaca aggcctaant cgccttcttc  120
W--> 222 ctctttccct tctttntttt t                                            141
        225 <210> SEQ ID NO: 11
        226 <211> LENGTH: 290
        227 <212> TYPE: DNA
        228 <213> ORGANISM: Glycine max
        230 <220> FEATURE:
        231 <221> NAME/KEY: unsure
        232 <222> LOCATION: (1)..(290)
        233 <223> OTHER INFORMATION: unsure at all n locations
        234 <223> OTHER INFORMATION: Clone ID: 701036911H1
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RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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      236 <400> SEQUENCE: 11
      238 ctcccgcatc tcctcgtcgc tccgccacgc cttcgcgcag gccgacccgt ggacggagct   60
      240 catcgaccgg agctccatgt cccgacccga caccctcgcc gaagcatact ctcggatccg  120
W--> 242 taagaacttc gcctanttcc gcgtcaatta cctaaccta atcgtgttgg cgctcgcggt  180
      244 ctcgctcatc acgcatccgt tctcgctatt cgtcctcttc ggtctcctcg cgtcgtggtc  240
W--> 246 gttcctttat ctctttcgcc cttcggatca gcctgtcgtc ntcttcggac             290
      249 <210> SEQ ID NO: 12
      250 <211> LENGTH: 285
      251 <212> TYPE: DNA
      252 <213> ORGANISM: Glycine max
      254 <220> FEATURE:
      255 <221> NAME/KEY: unsure
      256 <222> LOCATION: (1)..(285)
      257 <223> OTHER INFORMATION: unsure at all n locations
      258 <223> OTHER INFORMATION: Clone ID: 701036912H1
      260 <400> SEQUENCE: 12
W--> 262 ggtgacgaga gccaccaccc accaccgcaa gcgcaantga aaaggttact gaagttggat   60
W--> 264 ggtacnttct tggcgaggat caacaacaga ttggcccta cgccttctct gagttgtgcc  120
      266 agcatttctt gaatggatac ctctccgaaa atacgtttgt gtggtctgaa ggaagtagtg  180
      268 agtggcagcc cttgtcctcg gtttctgacc tgtgggctca aattaaccgg caggacctga  240
      270 ttcttcaact actgtgtctg ctcctgatgt tgatgagttt gaaag                 285
      273 <210> SEQ ID NO: 13
      274 <211> LENGTH: 289
      275 <212> TYPE: DNA
      276.<213> ORGANISM: Glycine max
      278 <220> FEATURE:
      279 <221> NAME/KEY: unsure
      280 <222> LOCATION: (1)..(289)
      281 <223> OTHER INFORMATION: unsure at all n locations
      282 <223> OTHER INFORMATION: Clone ID: 701036913H1
      284 <400> SEQUENCE: 13
      286 cacttcttga accgtgcctt aactaaacta gagctagaat tagagttagc taccttgcct   60
W--> 288 aattcacaaa cgcgtccctc tacggctcta cctattagct atcttntttg tgctgtgatt  120
      290 gaaattaatt tgtgatagct caccatggcc attgctactt gtgatcatga taagaacgca  180
W--> 292 aaggctttgc agttcattga ggatatgacc caaaacactg aaagtgtcca aganagggtc  240
W--> 294 cttgctgaga ttctcagcca aaactcccag accgaatacc tganacggt             289
      297 <210> SEQ ID NO: 14
      298 <211> LENGTH: 282
      299 <212> TYPE: DNA
      300 <213> ORGANISM: Glycine max
      302 <220> FEATURE:
      303 <221> NAME/KEY: unsure
      304 <222> LOCATION: (1)..(282)
      305 <223> OTHER INFORMATION: unsure at all n locations
      306 <223> OTHER INFORMATION: Clone ID: 701036914H1
      308 <400> SEQUENCE: 14
W--> 310 actgatcata aatcacatag ctagttgttt aaagtgagag anaaagaaag aagaanatgg   60
      312 caaactttcc agttgttgac atggggaaac ttaacaccga agagagagca gcagccatgg  120
W--> 314 agattataaa anatgcctgt gagaactggg gtttctttga gttggtgaac catgggatat  180
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RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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316 ccattgagtt gatggacact gtggagaggc tcacaaaaga gcactacaag aagactatgg  240
318 agcaaaggtt caaagaaatg gtggccagca aagggcttga gt                      282
321 <210> SEQ ID NO: 15
322 <211> LENGTH: 290
323 <212> TYPE: DNA
324 <213> ORGANISM: Glycine max
326 <220> FEATURE:
327 <221> NAME/KEY: unsure
328 <222> LOCATION: (1)..(290)
329 <223> OTHER INFORMATION: unsure at all n locations
330 <223> OTHER INFORMATION: Clone ID: 701036915H1
332 <400> SEQUENCE: 15
334 ctaaagcaaa cccagttgtc aagggctgaa aagcttgata agatctaaga tttgaagttg   60
336 aagttccatg ccctgagatg aagttatgca caatttcatc atgaaatgat ccgagtttcc  120
W--> 338 ttcacatttt attggtgttc ttattatatt gttatatgtg gtgggtgact tgagtnattg  180
340 gacatctctg caatttgaag gactctttca tgtgtgattggt gaaaatatat atgttggcca  240
342 ctgttgtttt taagtgcggt ttggtgaaag ttggttggtg ttgttagctt               290
345 <210> SEQ ID NO: 16
346 <211> LENGTH: 170
347 <212> TYPE: DNA
348 <213> ORGANISM: Glycine max
350 <223> OTHER INFORMATION: Clone ID: 701036916H1
352 <400> SEQUENCE: 16
354 gtttctctct acaagtccat atgtaaaatg gataacagaa agaaaaagaa aaatcacttt   60
356 ggtttgagaa cttttttaaag tttatattaa ctgtgttaag gttcataaaa ctgtagactg  120
358 atttgtgtga catgctccac agaaccttaa attttcctct attttgtcct               170
361 <210> SEQ ID NO: 17
362 <211> LENGTH: 302
363 <212> TYPE: DNA
364 <213> ORGANISM: Glycine max
366 <220> FEATURE:
367 <221> NAME/KEY: unsure
368 <222> LOCATION: (1)..(302)
369 <223> OTHER INFORMATION: unsure at all n locations
370 <223> OTHER INFORMATION: Clone ID: 701036917H1
372 <400> SEQUENCE: 17
W--> 374 ggccgtttcg aaagcnatga cgctatccac cgcgccctca ccgccaccgg cattagaaga   60
376 ggagccgtta cctcacgacg gcgacgatta cgacggcatc gtttcactgg acgacgaggg  120
W--> 378 tttcccgtnc gcaattcccc gaatcaggaa cggcgtcgga aaanagcagt ttcgccgcgg  180
380 attcactatc gcagacggaa ccgattggtc cttcgctgtt gttgtcgctg gaagatagta  240
382 aacagagcga tttagcgcaa gattcgggga agaagatgaa gcaggccaat ctgttccaga  300
384 tt                                                                 302
387 <210> SEQ ID NO: 18
388 <211> LENGTH: 294
389 <212> TYPE: DNA
390 <213> ORGANISM: Glycine max
392 <223> OTHER INFORMATION: Clone ID: 701036918H1
394 <400> SEQUENCE: 18
396 gtttccgata tccaggggga aatggcattg gtgttcaact accaactgga aataaaggaa   60
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Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:07

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
```

VERIFICATION SUMMARY   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:07

              Input Set : D:\15367C seq listing.txt
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L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36